



# California Regional Water Quality Control Board

## San Diego Region



Linda S. Adams  
Secretary for  
Environmental  
Protection

Over 50 Years Serving San Diego, Orange, and Riverside Counties  
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA

Arnold  
Schwarzenegger  
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9174 Sky Park Court, Suite 100, San Diego, California 92123-4340  
(858) 467-2952 • Fax (858) 571-6972  
<http://www.waterboards.ca.gov/sandiego>

August 3, 2009

**Certified Mail – Return Receipt Requested**  
Article Number: 7009 0820 0001 7183 7067

**In reply refer to:**  
**734001:jebsen**

Allison Gutierrez  
Unified Port of San Diego  
3165 Pacific Highway  
San Diego, CA 92101

Dear Ms. Gutierrez:

**SUBJECT: Action on Request for Clean Water Act Section 401 Water Quality Certification for the Kellogg Beach Sand Replenishment Project, Water Quality Certification No. 09C-014**

Enclosed find Clean Water Act Section 401 Water Quality Certification (Certification) with acknowledgment of enrollment under State Water Resources Control Board Order No. 2003-017 DWQ for Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have received State Water Quality Certification for the Kellogg Beach Sand Replenishment project. A description of the project and location can be found in the project information sheet and on location and site maps compiled by the California Regional Water Quality Control Board, San Diego Region (Regional Board), which are included as Attachments 1 through 4.

Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action (23 CCR § 3867). If no petition is received, it will be assumed that you have accepted and will comply with all the conditions of this Certification.

Failure to comply with all conditions of this Certification may subject you to enforcement actions by the Regional Board including administrative enforcement orders requiring you to cease and desist from violations, or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please

***California Environmental Protection Agency***

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov>.*

6000 \ 4 \ 00

A. Gutierrez  
San Diego Unified Port District  
401 Certification 09C-014

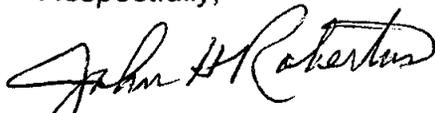
- 2 -

August 3, 2009

include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

If you have any questions regarding this notification, please contact Ms. Jody Ebsen directly at 858-636-3146 or by email via [jebsen@waterboards.ca.gov](mailto:jebsen@waterboards.ca.gov).

Respectfully,



JOHN H. ROBERTUS  
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. 09C-014 for the Kellogg Beach Sand Replenishment project, with 4 attachments

cc: Refer to Attachment 2 of Certification for Distribution List.

File No.	09C-014
WDID:	9 000001895
<u>CIWQS</u>	
Reg. Measure ID:	361562
Place ID:	734001
Party ID:	281794
Person ID:	90692



# California Regional Water Quality Control Board San Diego Region



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<http://www.waterboards.ca.gov/sandiego>

## Action on Request for Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Discharge of Dredged and/or Fill Materials

**PROJECT:** Kellogg Beach Sand Replenishment (2009) Project,  
Certification No. 09C-014, WDID No. 9000001895

**APPLICANT:** Allison Gutierrez  
Unified Port of San Diego  
3165 Pacific Highway  
San Diego, CA 92101

CIWQS Reg. Meas. ID: 361562 Place ID: 734001 Party ID: 281794
--

**ACTION:**

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017 DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004 DWQ

**PROJECT DESCRIPTION:**

The project proposes one-time beach replenishment at Kellogg Beach located along the west side of San Diego Bay with 1,000 cubic yards of sand. The material placed on the beach, pre washed riverbed sand from commercial sources, will provide recreational benefits, and habitat enhancement.

**STANDARD CONDITIONS:**

The following three standard conditions apply to all Certification actions, except as noted under Condition 3 for denials (Action 3).

1. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).

*California Environmental Protection Agency*

2. This Certification action is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action (Actions 1 and 2) must be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

**ADDITIONAL CONDITIONS:**

In addition to the three standard conditions, Unified Port of San Diego must satisfy the following:

**A. GENERAL CONDITIONS:**

1. Unified Port of San Diego must, at all times, fully comply with the engineering plans, specifications and technical reports submitted to the California Regional Water Quality Control Board, San Diego Region (Regional Board), to support this 401 Water Quality Certification (Certification) and all subsequent submittals required as part of this Certification and as described in Attachment 1. The conditions within this Certification must supersede conflicting provisions within such plans submitted prior to the Certification action. Any modifications thereto, would require notification to the Regional Board and reevaluation for individual Waste Discharge Requirements and/or Certification amendment.
2. During construction, Unified Port of San Diego must maintain a copy of this Certification at the project site so as to be available at all times to site personnel and agencies.
3. Unified Port of San Diego must permit the Regional Board or its authorized representative at all times, upon presentation of credentials:
  - a. Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
  - b. Access to copy any records required to be kept under the terms and conditions of this Certification.
  - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Certification.
  - d. Sampling of any discharge or surface water covered by this Order.
4. Unified Port of San Diego must notify the Regional Board within 24 hours of any unauthorized discharge, including hazardous or toxic materials, to waters

of the U.S. and/or State; measures that were implemented to stop and contain the discharge; measures implemented to clean-up the discharge; the volume and type of materials discharged and recovered; and additional best management practice (BMPs) or other measures that will be implemented to prevent future discharges.

5. Unified Port of San Diego must, at all times, maintain appropriate types and sufficient quantities of materials onsite to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the U.S. and/or State.
6. This Certification is not transferable to any person except after notice to the Executive Officer of the Regional Board. Unified Port of San Diego must also notify the Regional Board of any change in ownership of the project area. Notification must include, but not be limited to, a statement that the property owner has provided the purchaser or transferee with a copy of the Section 401 Water Quality Certification and that the purchaser or transferee understands the Certification requirements and must implement them. If the property is sold, the seller and purchaser must sign and date the notification. If the Certification is transferred, the Certification holder and transferee must sign and date the notification. The notification for transfer of mitigation responsibility shall include a signed statement from the new party demonstrating acceptance and understanding of the responsibility to meet the mitigation conditions and applicable requirements of the Certification. Notification must be provided within **10 days** of the sale and/or transfer of the property.
7. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation must be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.
8. In response to a suspected violation of any condition of this Certification, the Regional Board may require the holder of any permit or license subject to this Certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate, provided that the burden, including costs, of the reports must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
9. In response to any violation of the conditions of this Certification, the Regional Board may add to or modify the conditions of this Certification as appropriate to ensure compliance.

**B. PROJECT CONDITIONS:**

1. Prior to the start of the project, and annually thereafter, Unified Port of San Diego must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response, and BMP implementation and maintenance.
2. Unified Port of San Diego must comply with the requirements of State Water Resources Control Board Water Quality Order No. 2003-0017-DWQ, Statewide General Waste Discharge Requirements for discharges of dredged or fill material that have received State Water Quality Certification. These General Waste Discharge Requirements are accessible at:  
[http://www.waterboards.ca.gov/cwa401/docs/generalorders/go\\_wdr401regulated\\_projects.pdf](http://www.waterboards.ca.gov/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf).
3. Unified Port of San Diego must notify the Regional Board in writing at least **5 days** prior to the actual commencement of dredge, fill, and discharge activities.
4. Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or the State or placed in locations that may be subjected to storm flows. Pollutants discharged to areas within a stream diversion area must be removed at the end of each work day or sooner if rain is predicted.
5. Substances hazardous to aquatic life including, but not limited to, petroleum products, raw cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each project activity involving hazardous materials.

**C. PLACEMENT OF SEDIMENT**

1. The proposed project must be implemented as described in the application. The sediment used for beach sand replacement must not form a hardpan after placement. The sediment that will be placed on the beach must have less than 10% difference in grain size from the receiving beach and have no negative aesthetic impact on the receiving beach.
2. All sediment used for beach sand replacement must be tested for hazardous wastes and material, and grain size distribution. All sediment that has potential sources of biostimulatory substances and bacteria must be tested for biostimulatory substances and bacteria in accordance with the Inland Testing Manual. Sediment must meet the following criteria:

*a. Biostimulatory Substances*

The sediment must not contain biostimulatory substances in concentrations that exceed natural background levels, nor shall placement cause rise in background levels.

*b. Hazardous Wastes and Material*

The sediment must not contain hazardous wastes or materials in excess of those specified in the Inland Testing Manual.

*c. Bacteria*

The sediment must not contain bacteria concentrations that affect the beneficial uses of the waters of the United States and/or State.

*d. Grain Size*

The sediment must contain no more than 10% of fine grained sediment. Fine grained sediment is defined as particles that are smaller than 0.074 millimeters or pass through the #200 sieve.

*e. Trash*

The sediment must be free of trash and debris.

*f. Color*

The sediment must reasonably match the color of natural beach sand after exposure to the marine environment.

3. Discharges must comply with the California Ocean Plan and the Regional Board's *Water Quality Control Plan For The San Diego Basin (9)*(Basin Plan).
4. Sand placement activities must be protective of biological resources including but not limited to:

*a. California grunion (Leuresthes tenuis)*

For placement of sand on the beach from March 1 to August; Unified Port of San Diego must determine beach habitat suitability for grunion spawning. The applicant must comply with the Special Condition No. 6 of the Regional General Permit 67 – Beach Nourishment in Southern California (Corps File No. 200401896-JLB).

*b. California least tern (Sterna antillarum)*

No activities authorized under this certification will be conducted within 1,000 yards of a California least tern breeding colony from April 1 through September 30.

*c. Western Snowy Plover (Caradrius alexandrinus nivosus)*

No activities authorized under this certification will be conducted within 500 yards of a Western Snowy Plover breeding colony from May 1 through September 30.

*d. Eelgrass (Zostera marina)*

The proposed project should avoid vegetated eelgrass area or potential eelgrass areas to the maximum extent feasible.

*e. Pismo Clam (Tivela stultorum)*

Unified Port of San Diego must contact the California Department of Fish and Game, Marine Region, prior to placement to request current information on local populations and the appropriate methods in the project area.

5. Unified Port of San Diego's Transport and Discharge Plan must include the "Hauling Operations" and "Hazardous Materials Management" measures below in order to qualify for this certification:
  - a. *Hauling Operations*
    - i. All trucks hauling sand or other loose materials must be covered or required to maintain at least two feet of freeboard.
    - ii. All equipment engines must be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.
    - iii. All operations must be conducted in compliance with County Air Quality Management District requirements.
  - b. *Hazardous Materials Management*
    - i. The Transport and Discharge Operations Plan must include a "Spill Prevention, Containment and Countermeasures Plan" that specifies fueling and equipment maintenance procedures to prevent spills and leaks, and containment and cleanup measures to be followed in the event of a spill.
    - ii. All equipment must be inspected for leaks immediately prior to the start of beach operations, and regularly inspected thereafter until project completion. Vehicles with leaks must not enter the beach area.
    - iii. Equipment must be cleaned and repaired (other than emergency repairs) at least 500 feet from the high tide line. All contaminated water, sludge, spill residue, or other hazardous compounds will be disposed of at a lawfully authorized designation.
  
6. Qualitative (visual) turbidity monitoring by an onshore observer from a high vantage point must be conducted during each day of discharge and must not be greater than ambient conditions one-half mile offshore at or downcoast of the placement site. If visual monitoring indicates turbidity greater than ambient one-half mile from the discharge site (either offshore or downcoast) at any time for two (2) consecutive days, then:
  - a. The monitor must immediately advise the Regional Water Board, Corps, and CDFG.
  - b. Unified Port of San Diego must comply with any measures identified by the Regional Board, in consultation with other responsible agencies as appropriate, to mitigate project-related turbidity, including modifying or halting discharge.

c. If turbidity persists on the third day, the monitor must commence daily turbidity testing and reporting to the Regional Water Board, Corps, and CDFG. Testing must consist of measuring transmission of light through the water using a turbidity meter. Daily testing must continue until no project-related turbidity is detectable (i.e., until offshore and downcoast readings return to ambient). Testing must be designed to document the areal extent and concentration of the turbidity plume at the time of day it is most developed, and must include at least: samples taken as close as practicable to the discharge site, one-half mile upcoast of the discharge site, one-half mile offshore from the discharge site, and one-half mile downcoast of the discharge site (minimum four samples). Sampling must be done at mid-depth in the water column. These sampling protocols may be modified with the Regional Water Board's written approval. Unified Port of San Diego must document logistical arrangements for such potential water quality sampling and must prepare draft sampling and quality assurance/quality control protocols.

d. If turbidity is greater than ambient one-half mile from the discharge site (either offshore or downcoast) for five (5) consecutive days, the discharge must be halted or modified to reduce turbidity.

**D. MITIGATION:**

1. Temporary impacts by a one-time sand placement are to 0.4 acres (215 linear feet) of unvegetated, sandy open water. The project is self-mitigating as it will restore sand-based marine habitats, and recreational opportunities. The temporary impacts are not anticipated to negatively impact water quality. If the placement of sand does negatively impact the water quality for the beneficial uses listed in the Basin Plan, those negative effects must be mitigated. The Regional Board will stipulate the type of compensatory mitigation that will be required by an amendment to this certification or enforcement action against Unified Port of San Diego.

**E. PHOTO DOCUMENTATION PROCEDURE**

1. Unified Port of San Diego, and its successors, must conduct photo documentation of the project site, including all areas of temporary impact, prior to, during and after project construction. Photo documentation must be conducted in accordance with the State Water Resources Control Board's Photo Documentation Procedure, included as Attachment No. 4. In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced. Unified Port of San Diego must submit this information in a photo documentation report to the Regional Board with the final report. The report must include a compact disc that contains digital files of all the photos (jpeg file type or similar).



6. All applications, reports, or information submitted to the Regional Board must be signed and certified as follows:

*"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

7. Unified Port of San Diego must submit reports required under this Certification, or other information required by the Regional Board, to:

Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
Attn: 401 Certification; Project No. 09C-014  
9174 Sky Park Court, Suite 100  
San Diego, California 92123

6. Required Reports: The following list summarizes the reports, excluding spill notifications and emergency situations, required per the conditions of this Certification to be submitted to the Regional Board.

Report Topic	Certification Condition	Due Date(s)
Change of Ownership & Responsibility Notification	A.6	Within 10 days of the sale of property
Notification	B.3	At least 5 days prior to commencement of construction
Photo Documentation	E.1	With final report
GIS	F.1	Within 30 days of project impacts
Final Report	G3	Within 30 days of completion of the project

**PUBLIC NOTIFICATION OF PROJECT APPLICATION:**

On February 25, 2009, receipt of the project application was posted on the Regional Board web site to serve as appropriate notification to the public.

**REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:**

Ms. Jody Ebsen  
California Regional Water Quality Control Board, San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123  
858-636-3146  
jebesen@waterboards.ca.gov

**WATER QUALITY CERTIFICATION:**

I hereby certify that the proposed discharge from Kellogg Beach Sand Replenishment (Project No. 09C-014 ) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ; "Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017 DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the Regional Board may issue waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicants' project description and/or on the attached Project Information Sheet, and (b) on compliance with all applicable requirements of the Regional Board's Water Quality Control Plan (Basin Plan).

  
\_\_\_\_\_  
JOHN H. ROBERTUS  
Executive Officer  
Regional Water Quality Control Board

3 Aug 2009  
Date

- Attachments:
1. Project Information
  2. Distribution List
  3. Location and Site Map
  4. Photodocumentation Procedure

**ATTACHMENT 1  
PROJECT INFORMATION**

Applicant: ✓ Unified Port of San Diego  
Attention: Ms. Allison Gutierrez  
3165 Pacific Highway  
San Diego, CA 92101  
Telephone: 619-686-6254  
Email: agutierr@portofsandieg.org

Project Name: ✓ Kellogg Beach Sand Replenishment

Project Location: ✓ Kellogg Beach on the west side of San Diego Bay.  
Latitude: 32°42'33.3" Longitude:-117°14'13.1"

Type of Project: ✓ Beach Replenishment

Need for Project: ✓ Kellogg Beach is continuously subjected to scouring and erosion.  
Periodic sand replenishment is necessary to maintain beneficial  
uses of the beach.

Project Description: ✓ The project proposes one-time beach replenishment at Kellogg  
Beach located along the west side of San Diego Bay with 1,000  
cubic yards of sand. The material placed on the beach, pre washed  
riverbed sand from commercial sources, will provide recreational  
benefits, and habitat enhancement.

Federal Agency/Permit: ✓ U.S. Army Corps of Engineers §404, Individual Permit 200501537-  
LAM, Therese O'Rourke.

Other Required  
Regulatory Approvals: ✓ Unified Port of San Diego, Coastal Development – Categorical  
Exemption

California Environmental  
Quality Act (CEQA)  
Compliance: ✓ Kellogg Beach Sand Replenishment – CEQA Determination,  
August 20, 2008, Categorical Exemptions (Class 1 and Class 4),  
Unified Port of San Diego

Receiving Water: ✓ San Diego Bay in the Pueblo San Diego hydrologic unit, Point Loma  
hydrologic area (908.10).

Affected Waters of the  
United States: ✓ Temporary:  
0.4 acres (215 linear feet) of unvegetated, sandy open  
water.

Related Projects  
Implemented/to be  
Implemented by the  
Applicant(s): N/A

Unified Port of San Diego  
Kellogg Beach Sand Replenishment

09C-014

Compensatory  
Mitigation:

✓ The project is considered self-mitigating as it will restore beneficial uses. The temporary impacts are not anticipated to negatively impact water quality.

Public Notice:

✓ On February 25, 2009, receipt of the project application was posted on the Regional Board web site to serve as appropriate notification to the public.

Fees:

Total Due: \$1,741.00

Total Paid: \$1,741.00 (check No. 122905)

CIWQS:

✓ Regulatory Measure ID: 361562

✓ Place ID: 734001

Party ID: 281794

**ATTACHMENT 2  
DISTRIBUTION LIST**

X  
Ms. Therese O'Rourke  
U.S. Army Corps of Engineers, Regulatory Branch  
San Diego Field Office  
6010 Hidden Valley Rd, Ste 105  
Carlsbad, California 92011

Via email:

State Water Resources Control Board, Division of Water Quality  
401 Water Quality Certification and Wetlands Unit  
[Stateboard401@waterboards.ca.gov](mailto:Stateboard401@waterboards.ca.gov)

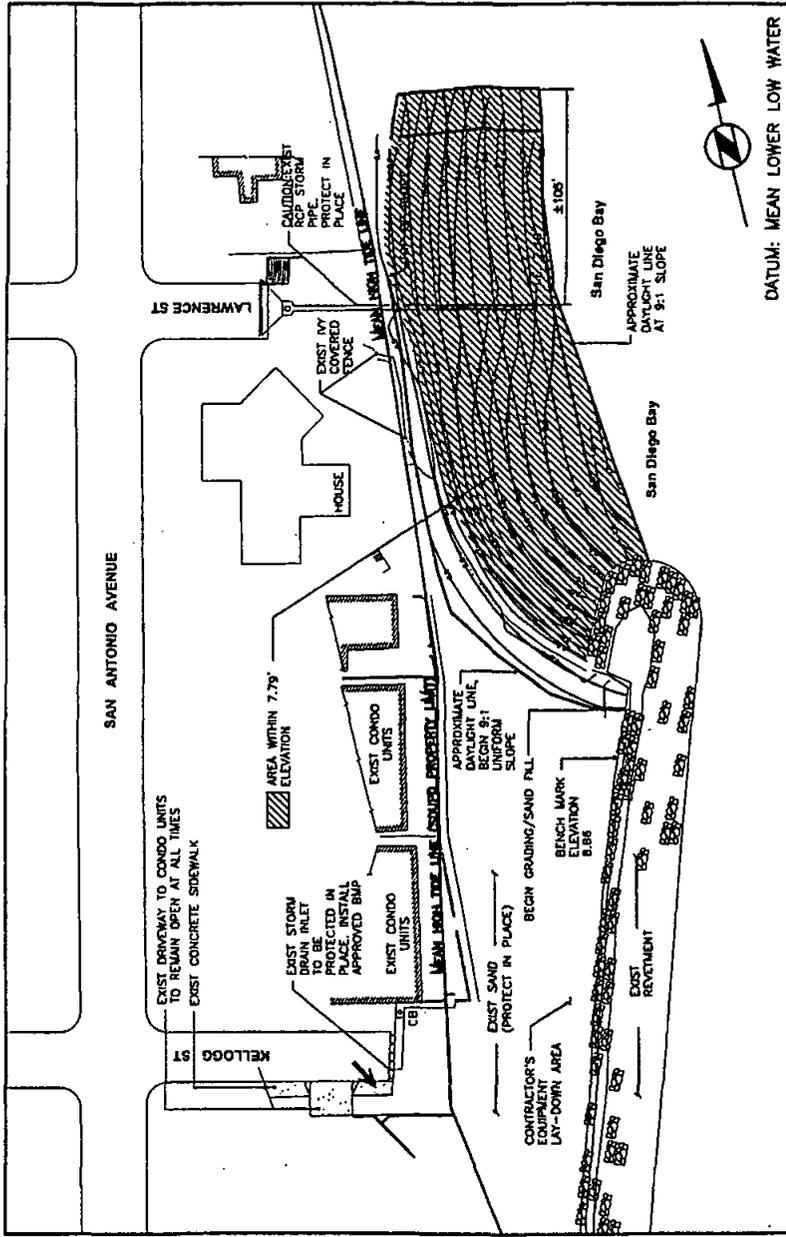
U.S. Environmental Protection Agency, Region 9  
Wetlands Regulatory Office  
[R9-WTR8-Mailbox@epa.gov](mailto:R9-WTR8-Mailbox@epa.gov)

Ms. Sally Brown  
U.S. Department of the Interior  
Fish and Wildlife Service  
[Sally\\_Brown@fws.gov](mailto:Sally_Brown@fws.gov)

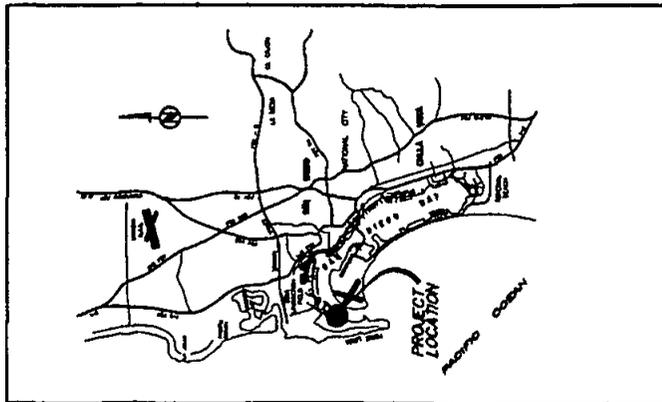
**ATTACHMENT 3  
LOCATION AND SITE MAP**

2/10/2009

# KELLOGG BEACH SAND REPLENISHMENT SAN DIEGO, CALIFORNIA



DATUM: MEAN LOWER LOW WATER



**A** VICINITY MAP  
SCALE: NONE

**B** SITE PLAN  
SCALE: NONE

09/21/2009

## ATTACHMENT 4 PHOTO DOCUMENTATION PROCEDURES

### **Standard Operating Procedure (SOP)**

#### **Photo Documentation Procedure**

(CARCD 2001, Written by TAC Visual Assessments work group)

#### **Introduction:**

Photographs provide a qualitative, and potentially semi-quantitative, record of conditions in a watershed or on a water body. Photographs can be used to document general conditions on a reach of a stream during a stream walk, pollution events or other impacts, assess resource conditions over time, or can be used to document temporal progress for restoration efforts or other projects designed to benefit water quality. Photographic technology is available to anyone and it does not require a large degree of training or expensive equipment. Photos can be used in reports, presentations, or uploaded onto a computer website or GIS program. This approach is useful in providing a visual portrait of water resources to those who may never have the opportunity to actually visit a monitoring site.

#### **Equipment:**

Use the same camera to the extent possible for each photo throughout the duration of the project. Either 35 mm color or digital color cameras are recommended, accompanied by a telephoto lens. If you must change cameras during the program, replace the original camera with a similar one comparable in terms of media (digital vs. 35 mm) and other characteristics. A complete equipment list is suggested as follows:

#### Required:

- Camera and backup camera
- Folder with copies of previous photos (do not carry original photos in the field)
- Topographic and/or road map
- Aerial photos if available
- Compass
- Timepiece
- Extra film or digital disk capacity (whichever is applicable)
- Extra batteries for camera (if applicable)
- Photo-log data sheets or, alternatively, a bound notebook dedicated to the project
- Yellow photo sign form and black marker, or, alternatively, a small black board and chalk

Optional:

- GPS unit
- Stadia rod (for scale on landscape shots)
- Ruler (for scale on close up views of streams and vegetation)
- Steel fence posts for dedicating fixed photo points in the absence of available fixed landmarks

**How to Access Aerial Photographs:**

Aerial Photos can be obtained from the following federal agencies:

USGS Earth Science Information Center  
507 National Center  
12201 Sunrise Valley Drive  
Reston, VA 22092  
800-USA-MAPS

USDA Consolidated Farm Service Agencies  
Aerial Photography Field Office  
222 West 2300 South  
P.O. Box 30010  
Salt Lake City, UT 84103-0010  
801-524-5856

Cartographic and Architectural Branch  
National Archives and Records Administration  
8601 Adelphi Road  
College park, MD 20740-6001  
301-713-7040

**Roles and Duties of Team:**

The team should be comprised of a minimum of two people, and preferably three people for restoration or other water quality improvement projects, as follows:

1. Primary Photographer
2. Subject, target for centering the photo and providing scale
3. Person responsible for determining geographic position and holding the photo sign forms or blackboard.

One of these people is also responsible for taking field notes to describe and record photos and photo points.

**Safety Concerns:**

Persons involved in photo monitoring should **ALWAYS** put safety first. For safety reasons, always have at least two 2 volunteers for the survey. Make sure that the area(s) you are surveying either are accessible to the public or that you have obtained permission from the landowner prior to the survey.

Some safety concerns that may be encountered during the survey include, but are not limited to:

- Inclement weather
- Flood conditions, fast flowing water, or very cold water
- Poisonous plants (e.g.: poison oak)
- Dangerous insects and animals (e.g.: bees, rattlesnakes, range animals such as cattle, etc.)
- Harmful or hazardous trash (e.g.: broken glass, hypodermic needles, human feces)

We recommend that the volunteer coordinator or leader discuss the potential hazards with all volunteers prior to any fieldwork.

### **General Instructions:**

From the inception of any photo documentation project until it is completed, always take each photo from the same position (photo point), and at the same bearing and vertical angle at that photo point. Photo point positions should be thoroughly documented, including photographs taken of the photo point. Refer to copies of previous photos when arriving at the photo point. Try to maintain a level (horizontal) camera view unless the terrain is sloped. (If the photo can not be horizontal due to the slope, then record the angle for that photo.) When photo points are first being selected, consider the type of project (meadow or stream restoration, vegetation management for fire control, ambient or event monitoring as part of a stream walk, etc.) and refer to the guidance listed on *Suggestions for Photo Points by Type of Project*.

When taking photographs, try to include landscape features that are unlikely to change over several years (buildings, other structures, and landscape features such as peaks, rock outcrops, large trees, etc.) so that repeat photos will be easy to position. Lighting is, of course, a key ingredient so give consideration to the angle of light, cloud cover, background, shadows, and contrasts. Close view photographs taken from the north (i.e., facing south) will minimize shadows. Medium and long view photos are best shot with the sun at the photographer's back. Some artistic expression is encouraged as some photos may be used on websites and in slide shows (early morning and late evening shots may be useful for this purpose). Seasonal changes can be used to advantage as foliage, stream flow, cloud cover, and site access fluctuate. It is often important to include a ruler, stadia rod, person, farm animal, or automobile in photos to convey the scale of the image. Of particular concern is the angle from which the

photo is taken. Oftentimes an overhead or elevated shot from a bridge, cliff, peak, tree, etc. will be instrumental in conveying the full dimensions of the project. Of most importance overall, however, is being aware of the goal(s) of the project and capturing images that clearly demonstrate progress towards achieving those goal(s). Again, reference to *Suggestions for Photo Points by Type of Project* may be helpful.

If possible, try to include a black board or yellow photo sign in the view, marked at a minimum with the location, subject, time and date of the photograph. A blank photo sign form is included in this document.

### **Recording Information:**

Use a systematic method of recording information about each project, photo point, and photo. The following information should be entered on the photo-log forms (blank form included in this document) or in a dedicated notebook:

- Project or group name, and contract number (if applicable, e.g., for funded restoration projects)
- General location (stream, beach, city, etc.), and short narrative description of project's habitat type, goals, etc.
- Photographer and other team members
- Photo number
- Date
- Time (for each photograph)
- Photo point information, including:
  - Name or other unique identifier (abbreviated name and/or ID number)
  - Narrative description of location including proximity to and direction from notable landscape features like roads, fence lines, creeks, rock outcrops, large trees, buildings, previous photo points, etc. – sufficient for future photographers who have never visited the project to locate the photo point
  - Latitude, longitude, and altitude from map or GPS unit
- Magnetic compass bearing from the photo point to the subject
- Specific information about the subject of the photo
- Optional additional information: a true compass bearing (corrected for declination) from photo point to subject, time of sunrise and sunset (check newspaper or almanac), and cloud cover.

For ambient monitoring, the stream and shore walk form should be attached or referenced in the photo-log.

When monitoring the implementation of restoration, fuel reduction, or Best Management Practices (BMP) projects, include or attach to the photo-log a narrative description of observable progress in achieving the goals of the

project. Provide supplementary information along with the photo, such as noticeable changes in habitat, wildlife, and water quality and quantity.

Archive all photos, along with the associated photo-log information, in a protected environment.

### **The Photo Point: Establishing Position of Photographer:**

1. Have available a variety of methods for establishing position: maps, aerial photos, GPS, permanent markers and landmarks, etc. If the primary method fails (e.g., a GPS or lost marker post) then have an alternate method (map, aerial photo, copy of an original photograph of the photo-point, etc).
2. Select an existing structure or landmark (mailbox, telephone pole, benchmark, large rock, etc.), identify its latitude and longitude, and choose (and record for future use) the permanent position of the photographer relative to that landmark. Alternatively, choose the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the photographer.
3. For restoration, fuel reduction, and BMP projects, photograph the photo-points and carry copies of those photographs on subsequent field visits.

### **Determining the Compass Bearing:**

1. Select and record the permanent magnetic bearing of the photo center view. You can also record the true compass bearing (corrected for declination) but do not substitute this for the magnetic bearing. Include a prominent landmark in a set position within the view. If possible, have an assistant stand at a fixed distance from both the photographer and the center of the view, holding a stadia rod if available, within the view of the camera; preferably position the stadia rod on one established, consistent side of the view for each photo (right or left side).
2. Alternatively, use the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the focal point (photo center).
3. When performing ambient or event photo monitoring, and when a compass is not available, then refer to a map and record the approximate bearing as north, south, east or west.

### **Suggestions for Photo Points by Type of Project:**

#### **Ambient or Event Monitoring, Including Photography Associated with Narrative Visual Assessments:**

1. When first beginning an ambient monitoring program take representative long and/or medium view photos of stream reaches and segments of shoreline being monitored. Show the positions of these photos on a map, preferably on the stream/shore walk form. Subjects to be photographed include a representative view of the stream or shore condition at the beginning and ending positions of the segment being monitored, storm drain outfalls, confluence of tributaries, structures (e.g., bridges, dams, pipelines, etc.).
2. If possible, take a close view photograph of the substrate (streambed), algae, or submerged aquatic vegetation.
3. Time series: Photographs of these subjects at the same photo points should be repeated annually during the same season or month if possible.
4. Event monitoring refers to any unusual or sporadic conditions encountered during a stream or shore walk, such as trash dumps, turbidity events, oil spills, etc. Photograph and record information on your photo-log and on your Stream and Shore Walk Visual Assessment form. Report pollution events to the Regional Board. Report trash dumps to local authorities.

#### **All Restoration and Fuel Reduction Projects – Time Series:**

Take photos immediately before and after construction, planting, or vegetation removal. Long term monitoring should allow for at least annual photography for a minimum of three years after the project, and thereafter at 5 years and ten years.

#### **Meadow Restoration:**

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long view showing an overlapping sequence of photos illustrating a long reach of stream and meadow (satellite photos, or hill close by, fly-over, etc.)
3. Long view up or down the longitudinal dimension of the creek showing riparian vegetation growth bounded on each side by grasses, sedges, or whatever that is lower in height
4. Long view of conversion of sage and other upland species back to meadow vegetation

5. Long view and medium view of streambed changes (straightened back to meandering, sediment back to gravel, etc.)
6. Medium and close views of structures, plantings, etc. intended to induce these changes

**Stream Restoration/stabilization:**

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long-view showing all or representative sections of the project (bluff, bridge, etc.)
3. Long view up or down the stream (from stream level) showing changes in the stream bank, vegetation, etc.
4. Long view and medium view of streambed changes (thalweg, gravel, meanders, etc.)
5. Medium and close views of structures, plantings, etc. intended to induce these changes.
6. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 3 and 4 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, *Stream Channel Reference Sites: An Illustrated Guide to Field Techniques*, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.

**Vegetation Management for Fire Prevention ("fuel reduction"):**

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long view showing all or representative sections of the project (bluff, bridge, etc.)
3. Long view (wide angle if possible) showing the project area or areas. Preferably these long views should be from an elevated vantage point.
4. Medium view photos showing examples of vegetation changes, and plantings if included in the project. It is recommended that a person (preferably holding a stadia rod) be included in the view for scale

5. To the extent possible include medium and long view photos that include adjacent stream channels.

**Stream Sediment Load or Erosion Monitoring:**

1. Long views from bridge or other elevated position.
2. Medium views of bars and banks, with a person (preferably holding a stadia rod) in view for scale.
3. Close views of streambed with ruler or other common object in the view for scale.
4. Time series: Photograph during the dry season (low flow) once per year or after a significant flood event when streambed is visible. The flood events may be episodic in the south and seasonal in the north.
5. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 1 and 2 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, *Stream Channel Reference Sites: An Illustrated Guide to Field Techniques*, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.



**PHOTO SIGN FORM:** Print this form on yellow paper. Complete the following information for each photograph. Include in the photographic view so that it will be legible in the finished photo.

**Location:**

**Subject Description:**

**Date:**

**Time:**

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

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Allison Gutierrez  
 SAN DIEGO Unified Port District  
 3165 Pacific Hwy.  
 SAN DIEGO CA 92101

2. Article Number  
 (Transfer from service label)

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**COMPLETE THIS SECTION ON DELIVERY**

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- Agent
- Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type

- Certified Mail  Express Mail
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4. Restricted Delivery? (Extra Fee)

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PS Form 3811, February 2004 g-3

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 Street, Apt. No.: 3165 Pacific Hwy  
 or PO Box No.:  
 City, State, ZIP+4: SAN DIEGO CA 92101

PS Form 3800, August 2006 See Reverse for Instructions